Appln. No.: 10/582,724

Amendment Dated August 7, 2008 Reply to Office Action of April 11, 2008

## Remarks/Arguments:

Claims 1-30 are pending. Claims 2, 17-21, 25 and 29 stand rejected and claims 1, 3-16, 22-24, 26-28 and 30 are withdrawn from consideration.

#### **Drawing Objections**

The drawings are objected to for a variety of reasons. Applicant has appropriately amended the figures. Specifically, reference character 7 described in the specification has been changed to 7b at page 3, line 13 of the specification; the lead line for reference character 21 is now pointing to the hole in rim 2; reference character 31 in Figure 3 has been changed to 31b and reference character 31a has been added to denote separate mating surfaces, and applicant has also appropriately amended the specification at page 4, line 14 to reflect the use of two reference characters 31a, 31b; and Figures 7 and 9 are revised such that the lead line of reference character 35 now points to the cylindrical wall of the seating as described in the specification.

The drawings were also objected to for failing to show every feature of the Invention specified in the claims. Specifically, "the further sealing means" of claim 26 was objected to. This objection is moot in view of the amendments of claim 26 described herein.

Finally, the drawings were also objected to for failing to show "gas taper threads" as described in the specification. The Office submits that "structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing." Applicant respectfully traverses this objection. It is well known to those of ordinary skill in the art what "gas taper threads" are. Applicant respectfully directs the Examiner's attention to International Standards Organization (ISO) and American National Standards Institute (ANSI) standards regarding gas taper threads and their application. Accordingly, applicant submits that one of ordinary skill in the art would readily have a proper understanding of what gas taper threads are and their application to the present invention as claimed. Applicant respectfully requests, therefore, that the objection be withdrawn.

## Objection to the Specification

The Office Action sets forth at page 4, "The specification is objected to as failing to provide proper antecedent basis for... further sealing means... inserted between the thread of the

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holes in said rim and the thread on the shank of said nipples' as set forth in claim 26." This objection is obviated by the amendment to claim 26 herein. Applicant respectfully requests that the objection be withdrawn.

### Objection to the Abstract

The Office Action sets forth at page 5, "The abstract of the disclosure is objected to because of the use of the legal term 'means." Applicant has appropriately amended the abstract and respectfully requests that the objection to the abstract be withdrawn.

## Claim Rejections Under 35 U.S.C. § 112

The Office Action sets forth at page 5, "Claim 26 is rejected under 35 U.S.C. 112, first paragraph..." Specifically, the Office objects to the "further sealing means..." set forth in claim 26. Applicant respectfully submits that this rejection is overcome by the amendments to claim 26 herein and respectfully requests that the rejection be withdrawn.

The Office Action sets forth at page 6, "Claims 3, 13, 18, 25 and 26 are rejected under 35 U.S.C. 112, second paragraph..." Applicant has appropriately amended claims 3, 13, 18, 25 and 26 and respectfully requests that the rejection be withdrawn.

## Claim Rejections Under 35 U.S.C. § 102

The Office Action sets forth at page 6, "Claims 2 and 25 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Leo et al." Applicant respectfully traverses this rejection for the reasons set forth below.

Applicant's invention, as recited in claim 2, recites features not disclosed or suggested by Leo, namely:

...each nipple is fitted so as to be substantially gastight into the respective hole in the rim and retained in said hole by <u>axial</u> <u>bidirectional locking means</u>. (Emphasis added)

These features are described in applicant's specification, for example, at page 3, lines 22-25 and page 5, lines 1-8.

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Applicant's invention is a spoked wheel for cycle use useable with tubeless tires. A feature is a plurality of nipples each fitted to be substantially gastight into respective holes in the rim. Each of the plurality of nipples is retained in their respective hole by axial bidirectional locking means.

Leo et al. is relied upon as "[disclosing] a wheel comprising a plurality of spokes connected to a single channel rim. Each spoke 4 includes a nipple 20 inserted through an opening 41' in the rim in a gas tight fit, with the nipple having internal threads 29 in a blind hole 28 to threadedly receive the threaded end 12 of the spoke in a manner that would create an axial bidirectional locking means." Applicant respectfully disagrees.

During normal use, spoked wheels are subjected to a continuous elastic deformation of the rim due to shock and irregularities in the road surface. The spoked wheels of the prior art absorbs these deformations by a "pumping effect" of the spokes and nipples, i.e. the nipples are caused to move in the respective seats in an axial direction together with the associated spike. Accordingly, it is not sufficient to simply apply a seal to normal wheels for use with tubeless tires.

That said, with respect to Leo et al., this normal pumping action will cause a continuous compression/release on the gasket and, for at least this reason, the wheel of Leo et al. will not retain air in a tubeless system. For example, in the embodiment of Figs. 1 to 5 the gasket would be deteriorated by compression resulting from the pumping effect when the nipple head is moved towards the cup 40 and air would leak when the nipple head is moved away from the cup 40. In the embodiment of Fig. 6 the gasket would not prevent the leakage of air when the nipple head moves away from the cup in response to the aforementioned pumping action. The tubular gasket of Figs. 5 and 6 is incapable of retaining the nipple bi-directionally as required in applicant's claim. This is because the gasket needs to be elastically deformable otherwise it could not be placed into the cup 40 or fit over the nipple shank.

In contrast, applicant's invention as recited in claim 2, requires each nipple is fitted so as to be substantially gastight into the respective hole in the rim and <u>retained</u> in said hole by axial bidirectional <u>locking</u> means.

It is <u>because</u> applicant has included the feature of each nipple being fitted so as to be substantially gastight into the respective hole in the rim and retained in said hole by axial

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bidirectional locking means that the following advantage is achieved. Applicant is able to provide a spoked wheel for use with a tubeless tire that will retain air in the tire during normal operation. Leo et al. fails to achieve this advantage because Leo et al. does not provide for each nipple being fitted so as to be substantially gastight into the respective hole in the rim and retained in said hole by axial bidirectional locking means.

Because Leo et al. fails to disclose each and every feature of applicant's claimed invention, applicant respectfully requests that the rejection of claim 2 as being anticipated by Leo et al. be withdrawn and the claim allowed.

Claim 25 depends upon claim 2 and, thus, is likewise not subject to rejection for at least the reasons set forth above with respect to claim 2.

# Claim Rejections Under 35 U.S.C. § 103

The Office Action sets forth at page 7, "Claims 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leo et al in view of Vetterlein." Applicant respectfully traverses this rejection for the reasons set forth below.

As set forth above, Leo fails to include every features of applicant's claim 2. The Office Action readily admits that Leo fails to include the features of dependent claim 17-21 and relies upon Vetterlein to make up for these deficiencies. Applicant submits, however, that Vetterlein fails to make up for the deficiencies of Leo et al. mentioned above with respect to claim 2. Accordingly, applicant respectfully submits that claim 17-21 are allowable at least in view of their dependency upon allowable claim 2.

The Office Action sets forth at page 8, "Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leo et al in view of Chiang et al." Applicant respectfully traverses this rejection for the reasons set forth below.

Chiang is relied upon for "[teaching] a spoke 60 that is made of steel, and a spoke 60' that is made of aluminum alloy." Chiang does not make up, however, for the deficiencies of Leo et al. discussed above with respect to claim 2. Accordingly, applicant submits that claim 29 is allowable at least in view of its dependency upon allowable claim 2. Applicant respectfully requests, therefore, that the rejection of claim 29 be withdrawn and the claim allowed.

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In view of the amendments and remarks set forth above, applicant submits that the above-identified application is in condition for allowance which action is respectfully requested.

Respectfully submitted,

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Attachments: Figures 1, 3, 7 (3 sheets)

Abstract

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The Director is hereby authorized to charge or credit Deposit Account No. 18-0350 for any additional fees, or any underpayment or credit for overpayment in connection herewith.

I hereby certify that this correspondence is being electronically transmitted to: Commissioner for Patents, Alexandria, VA on August 7, 2008.

Jugase